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Amendments to the Drawings:

The attached sheet of drawing includes an amendment to Fig. 1 to renumber the "X-RECEIVE ARRAY" as element 20. This sheet, which includes Fig. 1, replaces the original sheet including Fig. 1.

Attachment: Replacement Sheet

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REMARKS

In the Final Office Action dated January 31, 2007, the Examiner objected to the drawings, objected to the previous amendment to the specification for introducing new matter, objected to claims 12 and 37 for minor informalities, rejected claims 1-23 and 28-38 under 35 USC 112, second paragraph, as being indefinite, rejected claims 8, 11 and 36 under 35 USC 112, first paragraph, for failure to comply with the enablement requirement, rejected claims 1-3, 6-19, 21, 22, 24-32 and 35-38 under 35 USC 102 as anticipated by Graham in US Patent 5,914,709, rejected claims 1-3, 6-9, 12-22, 24, 28-32, 37 and 38 under 35 USC 102 as anticipated by Francis in US Patent 6,181,842, rejected claims 4, 5, 33 and 34 under 35 USC 103 as obvious over Graham, rejected claim 20 under 35 USC 103 as obvious over Graham and Francis, rejected claim 23 under 35 USC 103 as obvious over Graham and Hashino in US Publication 2002/0030668, rejected 4, 5, 33 and 34 under 35 USC 103 as obvious over Francis, rejected claim 23 as unpatentable over Francis and Hashino, and rejected claims 1-3, 8, 14, 15, 28, 29 and 32 on the grounds of non-statutory obviousness-type double patenting.

In response thereto, the Applicant has amended claims 1-13, 15-16, 18-25 and 27-38. Claims 1-38 remain at issue.

The Drawings

A proposed revised Figure 1 has been submitted renumbering the X RECEIVE ARRAY as element 20.

The Applicant has not amended the drawing to remove element 25. In the previous Office Action, the Examiner objected to the drawings because they did illustrate sleep mode element 25. The Applicant consequently introduced the sleep mode element 25 into Figure 1 in response to the rejection. Now the Examiner is objecting to the drawings for containing the specific item the Examiner requested to be included in Figure 1. The undersigned respectfully requests clarification on this issue. It is requested that the Examiner either: (i) suggest an appropriate location where the element 25 should be provided in Figure 1; or (ii) accept the revised Figure 1 as submitted herein.

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The Specification

The Applicant disagrees with the Examiner's objection to the specification. In reading the specification, and reviewing the drawings as a whole, it would be abundantly clear to one of ordinary skill in the art that such functions as the on/off cycle (paragraph [0019], intermediate on/off cycling of the X and Y light sources (paragraph [0020], and the sleep mode (paragraph [0021], would all be performed by the processor 24. These are all data processing operations performed by the processor 24. There is no other element described or illustrated in the figures that could perform such data processing functions. The language "in the processor 24" is therefore not new matter.

35 USC 112, Second Paragraph Objections

The Applicant has amended claims 12 and 37 to correct the minor informalities noted by the Examiner.

35 USC 112, Second Paragraph Rejections

As per claims 1-23 and 28-38, the Applicant has amended the claims to make it clear that the lamina of light is generated only when the data input device is powered on. With these amendments, the rejection has been overcome.

35 USC 112, First Paragraph Rejections

The subject matter of claim 8 is fully supported by the specification. See specifically paragraph [0018] which recites the light is derived from an "*incandescent source*", having "*a specific wavelength range*" from "350" to "1100" nanometers, and which substantially *matches the wavelength profile of X and Y receiving elements 20, 22*. Furthermore, paragraph [0016] recites that the light source can be an "*LED*" or "*VCSEL*". Claim 8 is therefore fully supported. The Applicant requests that this rejection be withdrawn.

Claims 11 and 36 have been amended to change "filter device" to "subtraction device." Both claims now recite "*a subtraction device configured to subtract the measured ambient light during an off cycle of the substantially continuous lamina of light from the measured light during an on cycle of the lamina of light*". The subtraction feature is fully described in paragraph [0020], which is reproduced below.

The light sources, regardless of the type, may also be operated either continuously or periodically, using on an on/off cycle. An on/off cycle conserves power, minimizes the heat generated by the source light, and permits temporal filtering to

reduce noise, such as lock in detection. During the off cycle, the X light receiving array 20 and a Y light receiving array 22 measure the passive or "dark" light (noise). The dark light measurement is then *subtracted* from the active light detected during the on cycle. The subtraction thus filters out DC background caused by the ambient light. During each off cycle, the passive light may also be calibrated, permitting the system to adjust to changing ambient light patterns. (bold and italic added for emphasis)

The bold and italic portions of Paragraph [0019] clearly support claims 11 and 36. The Applicant requests that this rejection be withdrawn. It would be obvious to one skilled in the art that the subtraction is performed in the processor 24.

The Art Rejection

Based on the Examiner's comments in *Response to Arguments*, it is believed that the claims would be allowable over the cited art if amended to include (i) the lamina of light being substantially continuous; and (ii) the lamina is generated only when the input device is powered on. The claims have been amended to include these two features. The Applicant submits that the claims are now allowable.

The Double Patenting Rejection

In the event the Examiner indicates that the subject application contains allowable claims, a terminal disclaimer will be filed.

Applicant believes that all pending claims are allowable and respectfully requests a Notice of Allowance for this application from the Examiner. Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the undersigned can be reached at the telephone number set out below.

Respectfully submitted,
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